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Interfacing multicellular organisms with polyelectrolyte shells and nanoparticles: A caenorhabtidis elegans study

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Abstract

We report the surface modification of microscopic live multicellular nematodes Caenorhabtidis elegans with polyelectrolyte multilayers (pure and doped with 20 nm gold nanoparticles) and the direct magnetic functionalization of nematodes with biocompatible magnetic nanoparticles. Magnetically functionalized "ironoxideclad" nematodes can be effectively separated and moved using an external magnetic field. The surface-functionalized nematodes preserve their viability and reproduction. © 2011 American Chemical Society.

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